

USGS CMSC FACS OVERVIEW LOG
ACTIVITY ID: 12BIM01

TOPIC	INFORMATION
USGS ACTIVITY ID:	12BIM01
OTHER ID (IF ANY):	N/A
ORGANIZATION(S)/PROGRAM:	USGS SPCMSC
PROJECT/THEME:	Barrier Island Mapping
AREA OF OPERATION:	Chandeleur Islands, La.
PRINCIPAL INVESTIGATOR(S):	Jim Flocks, Chris Smith
INFORMATION SPECIALIST(S):	Julie Bernier
ACTIVITY TYPE:	Sediment sampling of the Chandeleur Islands sand berm
SCIENTIFIC PURPOSE/GOALS:	
<p>Berm: The goal of this study is to assemble a baseline value of the sediment properties of the dynamic Chandeleur Islands sand berm and adjacent natural island in order to track sediment movement between the berm and natural island. The data collected will also contribute to current and future modeling efforts.</p> <p>Back-barrier: Overall goal: 1) Evaluate if the berm or original barrier island sediment (primarily sand) are being sequestered in back-barrier environments (marshes and tidal flats) or bypassing the system; 2) Evaluate whether the berm emplacement influenced sedimentation in the back-barrier environments. Specific objectives and tasks: 1) Quantify recent (<100 yr) mass accumulation rates in back-barrier environments along the Chandeleur Islands and the dominant form of sedimentation (inorganic versus organic); 2) Monitor short-term mass accumulation rates (analyzed through the duration of the project) following the berm emplacement and its infusion to the main-barrier island; and 3) Compare short- and long-term rates to evaluate changes in the mechanism and source of sedimentation in the back-barrier environments.</p>	
PLATFORM:	<i>RV Halimeda, Rv Survey Cat, 14' Carolina Skiff, Pelican houseboat</i>
STARTING DATE:	3/22/2012
STARTING PORT:	Biloxi, Miss.
ENDING DATE:	3/26/2012
ENDING PORT:	Biloxi, Miss.
EQUIPMENT USED:	Ashtech Z-Extreme GPS receivers with Ashtech Marine and Thales choke ring antennae, Garmin handheld GPS, AMS sand probe, USGS push corer and core extruder, Ponar and Ekman surface sediment samplers, digital camera
INFORMATION TO BE DERIVED:	Sediment properties (grain size, texture, composition), marsh accretion rates

SUMMARY OF ACTIVITY AND DATA GATHERED:	31 push cores along 10 transects across the berm; 29 surface grab samples along the axis of the berm and adjacent natural island; 15 push cores at back-barrier marsh and tidal flat sites; 10 grab samples in shallow water north and west of the berm.
STAFF:	Jim Flocks, Chris Smith, Julie Bernier, Kyle Kelso, Marci Marot (USGS), Carl Taylor (Jacobs Technology, Inc.)
NOTES:	FACS logs generated by J. Bernier from handwritten logs and field notes.